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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/678,367

10/03/2003

Noureddine Melikechi

DSU-102US

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31344

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09/02/2005

RATNERPRESTIA

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EXAMINER

DUPUIS, DEREK L

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/678,367	Applicant(s) MELIKECHI ET AL.	
	Examiner Derek L. Dupuis	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-8 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 5, in combination with the amendments to the claims filed 6/20/2005, with respect to the rejection of claim 7 under 35 U.S.C. 112 have been fully considered and are persuasive. The rejection of claim 7 under 35 U.S.C. 112 has been withdrawn.
2. Applicant's arguments, see page 5, in combination with the amendment to the specification filed 6/20/2005, with respect to the objection to the specification have been fully considered and are persuasive. The objection to the specification has been withdrawn. During further review, the examiner has found a new error in the specification (see below).
3. Applicant's arguments, see pages 5-8, in combination with the amendment to the claims filed 6/20/2005, with respect to the rejection of claims 1-8 under 35 U.S.C. 103(a) have been fully considered and are persuasive. The rejection of claims 1-8 under 35 U.S.C. 103(a) has been withdrawn.
4. Applicant's arguments, see pages 8 and 9, in combination with the amendment to the claims filed 6/20/2005, with respect to the provisional double patenting rejection of claim(s) 1-5 and 8 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of the prior art. The rejection is explained below.

### *Specification*

5. The disclosure is objected to because of the following informalities: in the second paragraph of page 1, applicant should include either the application number (10/678,368) or the publication number (US 2004/0179781) of the related case.

Appropriate correction is required.

### *Double Patenting*

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12, 13, 15, 18, 19, and 21 of copending Application No. 10/678,368 (US PG-PUB 2004/0179781) (hereafter referred to as the '368 application).

8. Regarding claim 1, all the limitations of this claim appear in claim 21 of the '368 application with the exception of the receptor being spatially fixed and of the input radiation having an optical field amplitude and that the interference pattern has an interference fringe adapted to maximize transfer efficiency of the optical field amplitude. Spatially fixing the receptor does not patentably distinguish the instant application over the '368 application because

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this limitation is obvious to one of ordinary skill in the art. The '368 application suggests this modification in claim 19. The input radiation having an optical field amplitude is not a patentably distinguishable limitation as this is a well known characteristic of optical radiation. Maximizing the energy transfer efficiency is also not a patentably distinguishable limitation because it has been held that optimizing a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

9. Regarding claims 2-7, these limitations are not patentably distinguishable over the '368 application. The limitations of claims 2 and 3 appear in claim 15 of the '368 application. The limitations of claim 4 are obvious as waveguides are routinely used as optical channels. The limitations of claim 5 appear in claim 18 of the '368 application. The limitations of claim 6 appear in claim 12 of the '368 application. The limitations of claim 7 appear in claim 13 of the '368 application.

10. Regarding claim 8, all the limitations of this claim appear in claim 26 of the '368 application with the exception of using an analog modulating signal to create the phase shift. This is not a patentably distinguishable difference because analog modulators are a well known and routine device used to cause phase delays in optics.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L. Dupuis whose telephone number is (571) 272-3101.

The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Derek L. Dupuis  
Group Art Unit 2883



**KAVEH KIANNI**  
**PRIMARY EXAMINER**